

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-12. (Canceled).

13. (Currently Amended) A glass-plate working apparatus comprising:

grinding means for grinding a peripheral edge of a glass plate;

grinding supporting means for supporting the glass plate whose peripheral edge is to be ground by said grinding means; and

transporting means for transporting said glass plate in and out said grinding supporting means by a linear movement thereof crossing above said grinding supporting means,

wherein said grinding supporting means includes a grinding supporting table, a plurality of suction cups which are held on said grinding supporting table by being attached by suction to said grinding supporting table and suck and hold the glass plate by sucking the glass plate whose peripheral edge is to be ground, and arranging means for disposing said plurality of suction cups, respectively, at positions corresponding to a shape of the glass plate to be ground, and

wherein said arranging means includes a suction-cup lifting device equipped to said supporting means for raising the suction cup,

wherein said transporting means includes one lifting device for raising the glass plate to be carried in, another lifting device for raising the glass plate on the suction cup to be carried out, and a slider to which said suction-cup lifting device, said one lifting device and said other lifting device are attached, and which is linearly movable in one direction.

14. (Currently Amended) The glass-plate working apparatus according to claim 13, wherein said arranging means has a suction-cup supporting body for supporting said suction cups separately from said grinding supporting table, and is adapted to move the suction cup from on said grinding supporting table onto said suction-cup supporting body or from on said suction-cup supporting body onto said grinding supporting table in correspondence with the shape of the glass plate.

15. (Previously Presented) The glass-plate working apparatus according to claim 13 or 14, wherein said arranging means is adapted to dispose said suction cups at positions corresponding to a shape of the glass plate in association with said transporting means and said grinding supporting means.

16. (Previously Presented) The glass-plate working apparatus according to claim 13, wherein said suction cup includes a cylindrical body whose upper surface is covered with an elastic member for abutment against the glass plate; a disk body for abutment against said grinding supporting table; and a connecting shaft which connects said disk body and said cylindrical body,

wherein said suction-cup lifting device has at least two grip arms which are moved close to or away from each other, and said grip arms respectively have recessed surfaces which are recessed with respect to said cylindrical body, said grip arms being adapted to grip said suction cup as the recessed surfaces are respectively abutted against peripheral edge portions of said cylindrical body while approaching each other.

17. (Previously Presented) The glass-plate working apparatus according to claim 13, wherein said suction cup has an annular abutment surface for abutment against said grinding supporting table and a recessed surface which is recessed with respect to said grinding supporting table, and is adapted to be attached by suction to said grinding supporting table through an opening in the recessed surface.

18. (Previously Presented) The glass-plate working apparatus according to claim 17, wherein said suction cup includes a disk body having the annular abutment surface and the recessed surface; a cylindrical body whose upper surface is covered with an elastic member for abutment against a lower surface of the glass plate; and a connecting shaft which connects said disk body and said cylindrical body, said suction cup being adapted to suck the glass plate through an opening in an upper surface of said elastic member and to be attached by suction to said grinding supporting table through the opening in the recessed surface of said disk body.

19. (New) A glass-plate working apparatus comprising:
a grinder to grind a peripheral edge of a glass plate;
a grinder support to support the glass plate whose peripheral edge is to be ground by said grinder; and
a transporter to transport said glass plate in and out said grinder support by a linear movement thereof crossing above said grinder support,
wherein said grinder support includes a grinding supporting table, a plurality of suction cups which are held on said grinding supporting table by being attached by suction to said

grinding supporting table and suck and hold the glass plate by sucking the glass plate whose peripheral edge is to be ground, and an arranging device to dispose said plurality of suction cups, respectively, at positions corresponding to a shape of the glass plate to be ground, and

wherein said arranging device includes a suction-cup lifting device equipped to said grinder support to raise the suction cup,

wherein said transporter includes one lifting device for raising the glass plate to be carried in, another lifting device for raising the glass plate on the suction cup to be carried out, and a slider to which said suction-cup lifting device, said one lifting device and said other lifting device are attached, and which is linearly movable in one direction.

20. (New) The glass-plate working apparatus according to claim 19, wherein said arranging device has a suction-cup supporting body to support said suction cups separately from said grinding supporting table, and is adapted to move the suction cup from on said grinding supporting table onto said suction-cup supporting body or from on said suction-cup supporting body onto said grinding supporting table in correspondence with the shape of the glass plate.

21. (New) The glass-plate working apparatus according to claim 19 or 20, wherein said arranging device is adapted to dispose said suction cups at positions corresponding to a shape of the glass plate in association with said transporter and said grinder support.

22. (New) The glass-plate working apparatus according to claim 19, wherein said suction cup includes a cylindrical body whose upper surface is covered with an elastic member for abutment against the glass plate; a disk body for abutment against said grinding supporting

table; and a connecting shaft which connects said disk body and said cylindrical body,

wherein said suction-cup lifting device has at least two grip arms which are moved close to or away from each other, and said grip arms respectively have recessed surfaces which are recessed with respect to said cylindrical body, said grip arms being adapted to grip said suction cup as the recessed surfaces are respectively abutted against peripheral edge portions of said cylindrical body while approaching each other.

23. (New) The glass-plate working apparatus according to claim 19, wherein said suction cup has an annular abutment surface for abutment against said grinding supporting table and a recessed surface which is recessed with respect to said grinding supporting table, and is adapted to be attached by suction to said grinding supporting table through an opening in the recessed surface.

24. (New) The glass-plate working apparatus according to claim 23, wherein said suction cup includes a disk body having the annular abutment surface and the recessed surface; a cylindrical body whose upper surface is covered with an elastic member for abutment against a lower surface of the glass plate; and a connecting shaft which connects said disk body and said cylindrical body, said suction cup being adapted to suck the glass plate through an opening in an upper surface of said elastic member and to be attached by suction to said grinding supporting table through the opening in the recessed surface of said disk body.